EXHIBIT 1
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SB # 159

NCAT

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Testimony of Dale Horton, NCAT, before the House Business and Labor Committee regarding SB159,

March 3, 2011

Ms. Chairperson and Members of the Committee:

My name is Dale Horton. I am the Energy Program Manager at the National Center for Appropriate Technology (NCAT) which has its headquarters in Butte. Before working for NCAT, I owned and operated an architecture firm designing homes and commercial buildings in Montana. As an organization with a mission to help low-income people deal with rising energy and food costs, we strongly oppose SB159. The proposed changes offered by SB159 are simply unnecessary. Following are reasons why you should vote no on SB159:

1. SB159 Fails to Consider Long-Term Affordability

Once a home is sold the builder is out of the picture. It is the homeowner who must be able to afford the home's energy and other operation costs. Organizations advocating affordable housing for low-income homeowners recognize the importance of building homes that ***exceed*** the energy code. For example:

> The Montana Board of Housing offers additional ranking points for homes that are built above the state energy code for projects competing for discretionary HUD and USDA funds. Over the last few years, all funded projects have been built above the energy code.
>
> Colorado and Utah have gone even further and require that all homes receiving discretionary HUD and USDA funding be ENERGY STAR Qualified. The current ENERGY STAR standard is a 15% improvement ***above*** the 2009 IECC, the base for Montana's code.
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> Habitat for Humanity requires that its new homes meet the most recent International Energy Conservation Code – currently the 2009 IECC, but soon to be the 2012 IECC. In Montana, the local Habitat chapters in Helena, Great Falls, and Missoula build to the ENERGY STAR standard.

Improving energy efficiency is significantly less expensive during initial construction. At the time of construction, the cost of improvements can be rolled into the building owner's mortgage and so does not require an up-front outlay of capital. One analysis found that retrofitting an existing home to boost its energy efficiency would cost five times more than adding the measures at initial construction.

The Ohio Homebuilders Association predicted that the 2009 IECC, similar to the Montana Energy Code, would increase new home costs by $2,500 but the resultant energy savings exceed the increased mortgage payments, giving the homeowner positive cash flow.

Designers, builders, and owners often give higher priority to the size of the garage, interior finishes, and floor area because they take a short-sighted perspective. The energy code should take a long-term approach to assure that the future owners and occupants of the building can afford to pay for future higher energy costs.

The typical useful life of a building is from 70 to over 100 years. To limit future energy code measures to a five-year payback is to turn a blind eye to the long-term energy cost implications for building owners. While a ten-year payback would be more reasonable there remain other significant problems that make SB159 bad for Montanans.

Instead of supporting SB159, homebuilders and realtors should be working to expand use of Energy Efficient Mortgages. While rarely used in Montana, Energy Efficient Mortgages increase the amount of money a homeowner can borrow for a new house based on energy savings. Energy Efficient Mortgages are recognized by secondary lenders. With Energy Efficient Mortgages, energy savings exceed the increased mortgage payments from energy saving measures, giving the homeowner positive cash flow the minute they move into the home.

2. Health Aspects of the Energy Code Are Hard to Quantify

Energy efficient construction improves occupant health and building durability by reducing moisture related problems and assuring that homes have enough fresh air. These health concerns are most serious for children, the elderly, and those suffering from illness. Some energy efficiency measures, especially those dealing with building tightness and ventilation have at least as much to do with health as with saving energy. How will the payback analysis place a monetary value on the health aspects of some energy code provisions? It would be negligent to reject a provision of the energy code based on an economic analysis that did not consider the health consequences. For this reason alone SB159 should be rejected.

3. Payback Calculation is Problematic

There are at least 30 different electric and gas utilities in Montana with different electric prices and rate structures. There are also several fuel types (natural gas, propane, oil, wood) besides electricity that are used in buildings. How will the Building Codes Bureau deal with these multiple energy prices in determining payback? Here is a very simple example. Let's compare the simple payback for installing a "programmable" thermostat in a typical new home which may use natural gas, propane, or electricity for space heat. If the house uses propane, the simple payback for a programmable thermostat is 4.7 years. If the house uses electric resistance heat, the simple payback is 5.8 years. If the house uses natural gas space heat, the simple payback is 16 years.

Further, to estimate payback with reasonable accuracy, several types and sizes of houses would need to be analyzed (single-story, two-story, basement, crawl space, concrete slab, etc.). Several types of commercial buildings would need to be analyzed (schools, offices, retail space, warehouses, etc.) for each commercial energy code measure. Several climate types should be considered. As you can see SB159 will significantly increase the cost and complexity of energy code deliberations. Adding the cost of this analysis to state government functions is unnecessary.

Payback is the wrong metric to use relative to home energy efficiency cost effectiveness. Simple payback fails to consider future energy cost increases. The appropriate question from an economics point of view is whether the average monthly energy savings from a measure is greater or less than the added monthly mortgage payment.

Conclusion

The current depressed new construction housing market was not caused by the Montana energy code. The state of the economy as a whole, the excess housing inventory, and the condition of the mortgage industry are the real culprits on that score. There is no need to fix something that is not broken. I urge you to vote no on Senate Bill 159. Thank you for the opportunity to offer testimony today.